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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,593	06/13/2000	Mark A. Lemkin	IMIN-01005US1	5628

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EXAMINER

KWOK, HELEN C

ART UNIT PAPER NUMBER

2856

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/593,593

Applicant(s)
Lemkin et al.

Examiner
H. Kwok

Art Unit
2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 6, the word -- said -- should be inserted after the word "between". In line 6, it is unclear how one can phrase "each second finger" if one chooses to have only one second finger. In line 7, what is the word "it" referring to?

In claim 4, lines 7-8, the phrase "each member of the second finger set" is not clear. What member and how could there be a "each" if there is only one second finger. In line 9, the word -- said -- should be inserted after the word "between". In line 10, please clarify the phrase "each second finger". In line 11, what is the word "it" referring to?

In claim 7, lines 2-3, the phrase "said vibrating mass" lacks antecedent basis.

In claim 8, line 8, the phrase "said voltage" is vague. Is this referring to the voltage as claimed in line 6 of this claim or the voltage claimed in line 12 of claim 4? In lines 8-9, the phrase "said quadrature detection circuitry" lacks antecedent basis.

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In claim 9, line 3, the phrase "a first displacement axis" should be changed to -- said first displacement axis --. In lines 5-6, the phrase "each member of the fourth finger set" is not clear. What member and how could there be a "each" if there is only one fourth finger. In line 8, the word --said -- should be inserted after the word "between". In line 9, please clarify the phrase "each fourth finger". In line 10, what is the word "it" referring to?

In claim 10, lines 3 and 5, the phrase "said position-dependent force" is vague. Is this referring to the force as claimed in line 2 of this claim or the force as claimed in line 13 of claim 4?

In claim 11, the claim appears to be very similar in limitation as in claim 10. It appears that this claim should be canceled.

In claim 12, lines 8-9, the phrase "said oscillation-sustaining feedback loop" lacks antecedent basis. In line 13, the phrase "said quadrature detection circuitry" lacks antecedent basis. In line 21, the phrase "said sense axis" lacks antecedent basis.

In claim 13, the claim has the same occurring problems as in claim 4; hence make the appropriate corrections.

In claim 16, line 3, the phrase "said vibrating mass" lacks antecedent basis.

In claim 17, line 9, the phrase "said quadrature detection circuitry" lacks antecedent basis. In line 10, the phrase "said mass" is vague. Is this referring to the first mass or second mass or both masses?

In claim 18, the claim has the same occurring problems as in claim 4; hence make the appropriate corrections.

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In claim 19, line 17, the phrase "said sense axis" lacks antecedent basis.

In claim 20, lines 7-8, the phrase "each member of the second finger set" is not clear.

What member and how could there be a "each" if there is only one second finger. In line 9, the word --said -- should be inserted after the word "between". In line 10, please clarify the phrase "each second finger". In line 11, what is the word "it" referring to? In lines 25-26, the phrase "said quadrature detection circuitry" lacks antecedent basis.

Claim Rejections - 35 U.S.C. § 102 /35 U.S.C. § 103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent 6,230,563 (Clark et al.).

Clark et al. discloses a dual mass vibratory rate gyroscope with quadrature error correction capability comprising, as illustrated in Figures 1-3, 11-14, a first finger set extending parallel to a first displacement axis; a second finger set extending parallel to the first displacement axis terminated between two first fingers; and an electrical circuit. (See, column 7, line 57 to column 9, line 12).

With regards to claims 2-3, Clark et al. does not explicitly disclose the specific parameter and dimensions of the first and second finger sets, but does teach that the length to width ration is 10 to 1, as discloses in column 5, lines 51-61. To have set such characteristics as in these claims is considered to have been a matter of design choice that would have been obvious to an artisan of ordinary skill in the art at the time of invention to recognize the advantages and desirability.

With regards to claims 4-20, the claims are commensurate in scope with claims 1-4 and are rejected for the same reasons as set forth above. Moreover, Clark et al. further discloses a third, fourth, fifth, sixth, seventh, and eighth finger sets (not specifically stated, but illustrated in such a way one would know there can be more finger sets along the displacement axis).

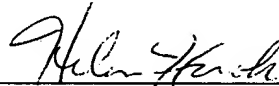
Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The references cited are related to micromachned vibratory rate gyroscope.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen Kwok whose telephone number is (703) 308-8149.


Helen C. Kwok
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hck
November 16, 2001